Systems Engineering Newsletter

Brought to you by Project Performance International (PPI)

SyEN #001 - October 15, 2008

Dear Colleague,

SyEN: Informative reading for the project professional, containing scores of news and other items summarizing developments in the profession and related industry, month by month.

This edition of SyEN is being sent to 32,000 project professionals in 164 countries. This newsletter and a newsletter archive are also available at www.ppi-int.com.

If you are presently receiving this newsletter from an associate, you may elect to receive the newsletter directly in future by signing up for this free service of PPI using the form at www.ppi-int.com. If you do not wish to receive this SE eNewsletter, please reply to this e-mail with "Remove" in the subject line, from the same email address. Your removal will be confirmed.

The newsletter presents in-depth coverage of the month's news in systems engineering and directly related fields, plus limited information on PPI's activities. Please forward this e-mail to friends and colleagues whom you think would be interested.

We hope that you find this newsletter to be informative and useful. Please tell us what you think. Email to: contact@ppi-int.com.

What's Inside:

A Quotation to Open On

“Make everything as simple as possible, but not simpler” - Albert Einstein

Feature Article

Agile Systems Engineering - Some views of Robert Halligan, FIE Aust

An interesting paper: **“Toward Agile Systems Engineering Processes”** by Dr. Richard Turner, of the Systems and Software Consortium, appears in the April 2007 edition of Crosstalk, The Journal of Defense Software Engineering (see www.stsc.hill.af.mil/CrossTalk/2007/04/0704Turner.html).

There is much in the paper that I agree with, and some content that I cannot embrace. In the latter respect, most of my disagreements relate to the author’s extreme characterisations of systems engineering – nobody in their right mind would do systems engineering the way the author describes. Certainly, none of PPI’s clients do systems engineering that way!

My other major criticism of the paper is that it fails to acknowledge the (presently) high degree of avoidable rework in most implementations of agile development. The paper stresses the merits of early and frequent delivery of capability usable by the customer/user. In reality, this is sometimes possible, and sometimes valuable. For software, and software-intensive systems, we could replace “sometimes” with “usually”. Conversely, early delivery of capability is sometimes impossible, or sometimes totally without value. A replacement for the bridge that collapsed in Minneapolis is an example of the latter; a control system for a nuclear reactor is another example.

The paper fails to acknowledge that proceeding in ignorance of what is already known about “the problem” is rarely a part of the formula for producing the best outcomes. When the cost of discovering this known information is less than the cost of rework from failing to do so

(almost always the case), we waste money and time. In essence, the paper reflects an unawareness of the existence of very effective, low cost techniques for requirements capture and validation – techniques that typically cost only 0.1%-2% of total project cost.

None of the above comment negates the value of agile as one of the primary strategies for system development. When we "engineer the engineering", agile falls out as the process solution of choice, where it should do so. Similarly, waterfall, iterative, some form of evolutionary development other than agile, or spiral development, falls out, where that alternative will produce the best outcomes, on the balance of probabilities. For larger projects, all of these strategies may well be in effect – hopefully in the right places!

In summary, agile development has emerged as a respectable and entirely proper approach for some types of problem. However, present implementations often involve considerable rework which costs more than avoidance of the rework. I predict that Agile will mature over the next decade towards an optimum balance of requirements capture through exposure of product, and requirements capture and validation through skillful problem analysis.

Regards,
Robert Halligan, FIE Aust
Managing Director, Project Performance International

Developments in Systems Engineering

International Journal of System of Systems Engineering

The International Journal of System of Systems Engineering has published its first edition with the following remit: "IJSSE proposes and fosters discussion on the evolution and current developments in the field of system of systems and systems engineering concepts, with emphasis on the implications of the fact that new developments on technical and non-technical systems are merging. This perspective acknowledges the complexity of the current man-made, ecological as well as societal systems, their interfaces and socioeconomic perspectives, in parallel with different space-time scales, as well as the reflexive characteristic of human systems."
[http://www.inderscience.com/browse/index.php?journalCODE=ijsse]

Systems Engineering Certification – INCOSE and the CSEP

As from 01 July 2008 the International Council on Systems Engineering (INCOSE) has made several changes to its certification programme. In the past the certification exam was based on version 2A of the SE Handbook. Certification also consisted of a single certification, namely Certified Systems Engineering Professional (CSEP).

The programme changes include a progression to version 3.1 of the SE Handbook as basis for the certification exam. Two more certifications have also added, namely Associate Systems Engineering Professional (ACEP) and CSEP for Acquisition (CSEP-Acq).

The ACEP certification is targeted towards junior systems engineers with less than the five years of experience required for the CSEP certification. It uses the same examination as for the CSEP.

The CSEP-Acq has exam questions based on the Defence Acquisition Guidebook (DAG) Chapter 4, in addition to the core CSEP examination.

Detailed information can be obtained on the INCOSE updated certification website.

Education of Youngsters in Systems Thinking

A very interesting flyer recently crossed my desk seeking expressions of interest from educators for a workshop on Systems Thinking in Schools to be held in Australia in January 2009. The workshop is to be run by the Waters Foundation. This expression of interest is to find out whether such an event would be viable outside of the U.S. If you are interested, you can email Ian Marsden at imars7@eq.edu.au. More information on the Waters Foundation can be obtained at http://www.watersfoundation.org.
Alwyn Smit, Editor, asmit@ppi-int.com

SysML, One Year On

SysML – A History

The Object Management Group (OMG) systems Modeling Language (OMG SysML™) is a general-purpose graphical modeling language intended for specifying, analyzing, designing, and verifying complex systems that may include hardware, software, information, personnel, procedures, and facilities. The language provides graphical representations for modeling system requirements, behavior, structure, and parametrics. SysML represents a subset of UML Version 2 with extensions needed to satisfy the requirements of the UML™ for Systems Engineering RFP. SysML leverages the OMG XML Metadata Interchange (XMI®) to exchange modeling data between tools, and is also intended to be compatible with the evolving ISO 10303-233 systems engineering data interchange standard.

The UML for Systems Engineering RFP was developed jointly by the OMG and the International Council on Systems Engineering (INCOSE) and issued by the OMG in March 2003. The RFP specified the requirements for extending UML to support the needs of the systems engineering community.

Unfortunately, the team which developed SysML fragmented into two warring factions, each developing their version of a language. It is said that one on the factions treated the requirements as for guidance only, whilst the other faction largely ignored the requirements. After intense lobbying by each faction for its version of SysML to be adopted, an intensely difficult process to unify the two competing languages took place.

The Object Management Group announced the adoption of the OMG SysML™ on July 6, 2006 and the availability of OMG SysML™ v1.0 in September 2007. The result has been a language that does not meet the requirements for the language, and a language with which many participants in its sponsorship or development seem to be unhappy.

SysML – The First Year

And so SysML has had its first birthday. What has transpired?

Necessary for the success of any graphical modeling language is software tool support. SysML has performed reasonably well in this respect. Several tool vendors have added support to SysML, mainly in combination with UML:

- ARTiSAN Software Tools
- EmbeddedPlus Engineering (Third party for IBM Rational)
- No Magic
- Papyrus for SysML (open source eclipse modeling tool)
- Sparx Systems
- Telelogic AB Tau and Rhapsody
- Visual Paradigm, SDE
- Software Stencils provides Microsoft Visio SysML templates.

OMG SysML is presently subject to a minor update, to V1.1. See www.omgsysml.org. This release aims to resolve 36 issues with SysML. The resolution of another 52 issues has been deferred.

There is little evidence of significant take-up by industry of SysML at this time. However, many individuals, enterprises and universities appear to be experimenting with SysML. BAE Systems (UK), is a notable exception regarding industry take-up, having announced a substantial contract with Artisan for supply of SysML software tools.

SysML Web Sites:

- www.SysMLforum.com: The SysML Forum is a web community dedicated to the Systems Modeling Language (SysML). The site provides information related to SysML modeling tools, specifications, tutorials, mailing lists, and blogs.
- www.SysML.org: The SysML.org website provides information and specifications related to the Systems Modeling Language (SysML) open source specification project, founded by the SysML Partners in 2003. The SysML specification is publicly available for download, and includes an open source license for distribution and use.
- www.omgSysML.org: This is the OMG SysML site.

SysML Mailing List Subscriptions:

- www.sysmlforum.com/mailinglist.htm

SysML News/Discussion Groups:

- SysML Forum: This is a discussion group for everything related to the Systems Modeling Language (SysML), such as:
  - SysML modeling tools
  - SysML methods and processes
  - SysML publications: books, articles, and papers
  - SysML methods and processes
  - SysML training

  The group is currently active, with 600 messages spanning Jan 05 to Sep 08.

- OMG SysML Group: This Yahoo Group is the official OMG-sponsored group for discussion on the definition and use of the OMG Systems Modeling Language (OMG SysML™).
- SysML Partners: This is the general discussion group for the SysML Partners to discuss technical and project issues related to the Systems Modeling Language (SysML). The group, active from Feb 05 to Jan 06, contains 319 messages which provide insights into SysML requirements and design issues. The messages in the Group also provides insight into the conflict which raged within the development team between a faction aligned to UML, and a faction aligned to “traditional” systems engineering. These insights help explain why many participants in, and customers of, the SysML project remain disappointed in the result.
- SysML Evaluators: This group, containing 165 messages, was for members of the INCOSE team evaluating the Nov. 2005 SysML submissions to OMG (see http://syseng.omg.org/SysML.htm). The messages in the Group provide insight into language design issues. Time span is Dec 2005 to Jan 2006.
- Georgia Tech SysML Forum: The purpose of this group is to exchange knowledge on the SysML standard and collaborate on research and implementation within the Georgia Tech community.
- Model-based Systems Engineering with SysML/UML : A new, small group with 6 messages over May to June 08

SESA Pursues a Systems Engineering Accreditation Program

The Systems Engineering Society of Australia (SESA) has formed a Systems Engineering Accreditation Interest Group (SEA-SIG) with the objective of implementing a certification or accreditation program by 2011.
Website: www.sesa.org.au. Contact: Martin Hilton, martin.hilton@baesystems.com.

Financial Meltdown and Systems Engineering

US Treasury Secretary Hank Paulson has put a former aerospace engineer in charge of the $US700 billion Wall Street bailout. The bailout is about preventing the credit crisis descending into a full-blown global financial meltdown. Officially, Kasahkari will be interim Assistant-Secretary for Financial Stability in the Treasury.

In the age of exploding hedge funds and disintegrating investment banks, a fundamental capability is to construct and deconstruct the complex mathematical and computer modeling behind the trillions of dollars of mortgage-backed debt and financially engineered derivatives products. According to Paulson, Kashkari is as good as there is, in this respect.

After graduating, Kashkari worked on NASA space missions including the James Webb telescope project before switching to finance and studying for an MBA at the University of Pennsylvania's Wharton School. "The whole idea was to combine engineering with finance," Kashkari's father Chaman Kashkari, also an engineer, said at the time. "He told me the country needed people who have a good concept of engineering and a good concept of finance."

According to Peter Dowd, Executive Dean at the Faculty of Engineering, Computer and Mathematical Sciences and the University of Adelaide, Kashkari's thinking was perfectly understandable.

"It's indicative of the change in engineering to what most people would call systems engineering," Professor Dowd said yesterday.

"The really complex problems we face, be they in the environment or financial or whatever, are interdisciplinary problems that require a systems approach in order not to miss bits of the puzzle.

"Most of what he'll be doing will be mathematical modeling, but if he really wants to embrace it, he'll have to take into account human behavior and the psychology of large groups of people and of individuals. That's when it becomes really interdisciplinary."

Source: based on an article published in The Australian, Sydney, Australia, 8 October 2008

Featured Society: The International Council on Systems Engineering

The International Council on Systems Engineering (INCOSE) is a not-for-profit membership organization founded in 1990. Its mission is to advance the state of the art and practice of systems engineering in industry, academia, and government by promoting interdisciplinary, scaleable approaches to produce technologically appropriate solutions that meet societal needs.

The goals of INCOSE are:

- to provide a focal point for dissemination of systems engineering knowledge.
- to promote international collaboration in systems engineering practice, education, and research.
- to assure the establishment of competitive, scaleable professional standards in the practice of systems engineering.
- to improve the professional status of all persons engaged in the practice of systems engineering.
- to encourage governmental and industrial support for research and educational programs that will improve the systems engineering process and its practice.

INCOSE has grown significantly since its formation in 1990. Today, there are over six thousand members worldwide, representing a broad spectrum – from student to senior practitioner, from technical engineer to program and corporate management, from science and engineering to business development. Members work together to advance their knowledge and skills, exchange ideas with colleagues, and collaborate to advance systems engineering practice.

INCOSE operates through a structure of a central organization, regions which span the globe, and chapters within the regions. A technical

infrastructure incorporates a technical leadership group and a wide range of working groups and interest groups. Both Project Performance International and its subsidiary company, Certification Training International, are members of the Corporate Advisory Board of INCOSE, as are many of the world's leading technology-based enterprises. Almost all business sectors are represented on the CAB.

INCOSE collaborates with ISO and other organizations in developing standards.

For more information on INCOSE or to join as an individual or CAB member: www.incose.org.

Systems Engineering Software Tools News

New high level modeling tools are emerging in commercial shake-up

http://www.engineerlive.com/european-electronics-engineer/electronics-design/20445/new-high-level-modelling-tools-are-emerging-in-commercial-shakeup.thtml

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MagicDraw 15.5 Adds Project Branching and Merging Capabilities for Large Team Collaboration (NM)

MagicDraw is now available for purchase in six editions and four license types (standalone, mobile, floating, and site). Standalone Pricing: Personal Edition ($149). Standard Edition (from $499), Professional (from $899), Enterprise (from $1,599).

The SysML plugin for MagicDraw is available for $799.
The DoDAF plugin for MagicDraw is available for $999, or for $899, if bought at the same time with the SysML plugin. – See all stories on this topic at http://www.theopenpress.com/index.php?a=press&id=34978

Artisan Studio v7.0 due for Release, August 2008

Featured Webinar: 21 August 2008, Introducing Artisan Studio v7.0
Details: http://www.artisansw.com/news/webinar_details.aspx?webinarID=59

Artisan acquires High Integrity Solutions

Acquisition marks the expansion of Artisan's Work as One vision - Vds engineering framework for complex mission and safety-critical project
Details: http://www.artisansw.com/news/press_release_details.aspx?pressReleaseID=194

6.2i patch provides the latest fixes to Artisan Studio 6.2

Artisan has announced that the 6.2i patch which is now available for download from our Customer Centre. The patch provides the latest fixes to Artisan Studio 6.2 and is particularly recommended for any users working with sandboxes.
Details: http://www.artisansw.com/support/customer_center/

InterCAX ParaMagic - Now available

VentureLab company InterCAX has released its first product. ParaMagic is a software tool that works with MagicDraw, claimed to be the worlds most popular UML drawing tool. It allows system drawings to be simulated. As NoMagic says - "it makes ... models come alive".
Details: http://blog.gtventurelab.com/2008/07/intercax-paramagic-now-available.html

Systems Engineering Books, Reports, Articles and Papers

Opportunities for Systems Engineering to Contribute to Durability and Damage Tolerance of Hybrid Structures for Airframes

By Jean R. Gebman
The structures making up airframes must be durable and damage tolerant, and the means of ensuring that they have long been well defined for structures made of metal. But a host of new hybrid materials, some of which contain no metal, are now being used, and these can present new damage mechanisms that engineers must address. The Air Force has established a general approach to airframe durability and damage tolerance. The author examines that approach and considers ways it will need to adapt for the new materials. Given the variety of materials, processes, and end uses involved, the engineering effort will necessarily involve multiple specialties. In these circumstances, the tailoring process could benefit from the efforts of systems engineers. The report addresses both technical and programmatic concerns and identifies opportunities for materials and structural engineers to collaborate with systems engineers. Finally, it offers a framework for collaboration. http://www.rand.org/pubs/technical_reports/TR489/

Sources of Weapon System Cost Growth Analysis of 35 Major Defense Acquisition Programs

By: Joseph G. Bolten, Robert S. Leonard, Mark V. Arena, Obaid Younossi, Jerry M. Sollinger
Previous studies have shown that the Department of Defense (DoD) and the military departments have historically underestimated the cost of new weapon systems. Quantifying cost growth is important, but the larger issue is why cost growth occurs. To address that issue, this analysis uses data from Selected Acquisition Reports to examine 35 mature, but not necessarily complete, major defense acquisition programs similar to the type and complexity of those typically managed by the Air Force. The programs are first examined as a complete set, then Air Force and non-Air Force programs are analyzed separately to determine whether the causes of cost growth in the two groups differ. Four major sources of cost growth were identified: (1) errors in estimation and scheduling, (2) decisions made by the government, (3) financial matters, and (4) miscellaneous sources. Total (development plus procurement) cost growth, when measured as simple averages among the program set, is dominated by decisions, which account for more than two-thirds of the growth. Most decisions-related cost growth involves quantity changes (22 percent), requirements growth (13 percent), and schedule changes (9 percent). Cost estimation (10 percent) is the only large contributor in the errors category. Less than 4 percent of the overall cost growth is due to financial and miscellaneous causes. Because decisions involving changes in requirements, quantities, and production schedules dominate cost growth, program managers, service leadership, and Congress should look for ways to reduce changes in these areas.
http://www.rand.org/pubs/monographs/MG670/

Options for Meeting the Maintenance Demands of Active Associate Flying Units

By: John G. Drew, Kristin F. Lynch, James M. Masters, Robert S. Tripp, Charles Robert Roll, Jr.
The methodology developed in this research can be used to quantify and compare the key factors that allow the U.S. Air National Guard to generate peacetime training sorties with a fairly small full-time workforce. The authors apply these insights to proposed Total Force Integration initiatives to evaluate maintenance options for supporting associate units, where the goal of the unit is to produce trained pilots in the most efficient manner possible. The methodology evaluates how various types of personnel can influence the size and productivity of a unit.
http://www.rand.org/pubs/monographs/MG611/

Conferences and Meetings

NDIA 11th Annual Systems Engineering Conference

Hyatt Regency Mission Bay, San Diego, CA, 20 - 23 October, 2008.
http://www.ndia.org/Template.cfm?Section=9870&Template=/ContentManagement/ContentDisplay.cfm&ContentID=12342
The primary objective of the 11th Annual Systems Engineering Conference is to provide insight, information and lessons learned into how we can improve the overall performance of defense programs via a better, more focused application of systems engineering that will lead to more capable, interoperable and supportable weapon systems for the warfighter, with reduced total ownership costs, to help our military meet its current and new Mission Area and Capabilities requirements.

NordiCHI 2008

Lund, Sweden. 20, 22 October 2008.
http://www.nordichi2008.org/index.php
Registration is now open! New approaches to requirement elicitation: Workshop at the NordiCHI 2008 Conference, Lund, Sweden, Sunday 19th October, 2008

MIT Systems Thinking Conference

MIT Campus. October 23 - 24 2008
http://www.marketwatch.com/
Senior executives will offer insights into best practices for applying systems thinking at their companies, which include Microsoft, IDEO, Herman Miller, Agilent, eClinicalWorks, Capgemini, and HubSpot.

First International Workshop in Formal Methods Education and Training (FMET 2008)

28 October 2008
http://www.grace-center.jp/events/fmet2008/index.html
Affiliated with International Conference on Formal Engineering Methods (ICFEM) 2008, Kitakyushu International Conference Center, Kitakyushu-City, Japan. Sponsored by the GRACE Center, National Institute of Informatics, http://grace-center.jp/en/index.html.
http://www.nii.ac.jp/index.shtml.en
IMPORTANT DATES: Paper submission: August 15 2008. Notification of acceptance: September 15 2008. Final copy for proceedings: October 10 2008.

Computer Supported Cooperative Work (CSCW) 2008

San Diego, California, USA, November 8 - 12 2008
http://www.cscw2008.org/index.html
It is time to register for CSCW 2008! This year's program contains a growth in the diversity of topics, methods and technologies that support collaboration.

Workshop in conjunction with CSCW 2008

San Diego, CA, USA. November 9, 2008
http://conway.isri.cmu.edu/~jdh/VRC-2008
Supporting Distributed Team Work: This workshop seeks to understand the barriers and solutions for closely-coupled work by fully- and partially-distributed teams and to chart solutions motivated by studies of collocation and radical collocation.

INCOSE U.K. Autumn Assembly - "Best Practice in Systems Engineering"

Heythrop Park, Oxfordshire, England. November 24 - 25, 2008
http://www.incose.org.uk/events.htm

The Fourth International Joint Conferences on Computer, Information, and Systems Sciences, and Engineering (CISSE 2008)

December 5-13, 2008, ENTIRELY ONLINE
http://www.cisse2008online.org
Sponsored by the University of Bridgeport Technically co-sponsored by the IEEE Computer Society, Communications Society, Education Society (Connecticut Section).
IMPORTANT DATES: Paper submission Deadline: October 15th, 2008. Notification of Acceptance: November 9th, 2008. Final Manuscript and Registration: November 26th, 2008.

INCOSE International Workshop (IW) 2009

San Francisco, USA. January 31 - February 3, 2009

SAC 2009, 24th Annual ACM Symposium on Applied Computing

Hilton Hawaiian Village Beach Resort & Spa Waikiki Beach, Honolulu, Hawaii, USA, 8 - 12 March, 2009
http://www.acm.org/conferences/sac/sac2009
IMPORTANT DATES: Paper submissions: Extended to August 23, 2008. Author notification: October 11, 2008. Camera-ready due: October 25, 2008

Third Workshop on Engineering Complex Distributed Systems (ECDS 2009)

Fukuoka, Japan. March 16 - 19, 2009
http://voyager.ce.fit.ac.jp/conferences/ecds2009/
IMPORTANT DATES: Papers due: September 30th, 2008. Notification of acceptance: November 20th, 2008. Final papers due: December 15th, 2008. Conference / Workshop date: March 16-19, 2009.

International Conference on Complex, Intelligent and Software Intensive Systems (CISIS) 2009

Fukuoka Institute of Technology (FIT), Fukuoka, Japan. March, 16 - 19 2009

http://www.cisis-conference.eu/conf/
IMPORTANT DATES: Workshop Proposal, June, 20th 2008. Workshop Proposal Notification, June, 30th 2008. Submission Deadline, September, 30th 2008. Author Notification, November, 20th 2008. Author Registration, November, 30th 2008. Proceedings Version, December, 15th 2008. Conference, March, 16th - 19th 2009.

INCOSE U.K. Annual Spring Conference

March 30 - April 1, 2009
http://www.incose.org.uk/events.htm

IDEAS 2009- XII Iberoamerican Conference on Requirements Engineering and Software Environments

Medellín, Colombia, April 13 - 17 2009
http://ideas09.eafit.edu.co/
IMPORTANT DATES: Paper Submission Deadline: November 1, 2008. Notification of Acceptance: December 15, 2008. Camera-ready: January 15, 2009.

ICMISE 2009: International Conference on Medical Information Systems Engineering

Tokyo, Japan, May 27 - 29, 2009
http://www.waset.org/wcset09/tokyo/icmise/
IMPORTANT DATES: Paper submission: January 30, 2009. Notification of acceptance: February 28, 2009. Final paper submission and authors' registration: March 31, 2009. Conference Dates: May 27 - 29, 2009.

INCOSE 19th Annual International Symposium (IS) 2009

July 20-23, 2009. Singapore
http://www.incose.org/symp2009
IMPORTANT DATES: Papers due: November 3rd, 2008. Notification of Acceptance: February 13th, 2009. Final papers due: March 27th, 2009.

Education

UAE Introduces a Systems Engineering Program

Earlier this year the leading UAE research-based postgraduate university, The British University in Dubai, announced the launch of a pioneering programme to boost the level of key skills in the region, through the creation of the Middle East's first MSc in Systems Engineering (http://www.ameinfo.com/161476.html).

The purpose of the MSc in Systems Engineering is to provide a multi-disciplinary engineering programme delivered by the Faculty of Engineering. It contributes to defining and advancing the professional practice of Systems Engineering in the UAE and in the region. The MSc in Systems Engineering is available as a full-time (12 months) or part-time (24 months) programme of study. It consists of 8 modules (15 credits each) and a dissertation (60 credits). Detailed information on the programme can be found at http://www.buid.ac.ae/buid/html/article.asp?cid=741.

People

Professor Joe Kasser

Dr. Joseph Kesser, formerly of the University of Maryland University College (UMUC) and subsequently the University of South Australia (UniSA), has accepted an appointment with the National University of Singapore, commencing September, 2008. He has most recently been working in the United Kingdom under a grant from The Leverhulme Trust to Cranfield University, developing a course “Integrated Multidisciplinary Engineering for the 21st Century”.

See also Kasser J.E., A Framework for Understanding Systems Engineering, produced by The Right Requirement Ltd and published by Booksurge, 2007; available from Amazon.com.

Related News

CBAPTM Computer-Based Testing Launches September 1, 2008

On September 1, 2008, the International Institute of Business Analysis (IIBA) will launch computer-based testing (CBT) of the Certified Business Analysis Professional™ (CBAP™) exam at dedicated test centers around the world. This will allow approved applicants to take the CBAP exam at a convenient time and location.

Benefits include:

- More dates, times and locations to choose from
- Reduced travel time and costs
- More international locations including (but not limited to) Australia, New Zealand, England, UAE, India, China, etc.

A listing of test center locations is posted on the IIBA website: http://www.theiiba.org under Certification -> Process -> Exam Information.
Hosted exams will continue to be an option for IIBA Chapters, EEPs and companies who prefer to schedule a sitting of the CBAP exam in their area.
The IIBA is also working to improve the exam application process. By the end of 2008, CBAP applicants will be able to complete and submit their application package and pay their fees online.
For more information on certification, please visit the IIBA website at http://www.theiiba.org. For certification questions not addressed on the website, email certification@theiiba.org.

Some Systems Engineering-Relevant Websites

http://lingualspark.blog.sohu.com/95059816.html
The site contains some interesting references for the use of semantic analysis in requirements engineering, complementing the parsing analysis technique that is taught in some of Project Performance International's courses.

http://acronyms.thefreedictionary.com

http://en.wikipedia.org/wiki/sysml.org

http://www.theenterprisearchitect.eu
A blog by Johan den Haan relating to software architecture, enterprise architecture and information architecture

http://www.iee.org/oncomms/pn/systemseng/
This systems engineering site provides an online community for systems engineers to update their knowledge by reading forums and discussing problems with other engineers.

http://www.ieee-smc.org
The IEEE Systems, Man and Cybernetics society site has information on various topics. This includes fields of interest (integration of different theories, development of systems engineering technology and the application of this into hardware and software), representative applications and areas of interest (large scale systems, optimisation, etc.).

http://www.valerdi.com/cosysmo
COSYSNO - Constructive cost models for systems.

http://www.aceit.com
Automated Cost Estimating Integrated Tools (ACEIT) is an automated architecture and framework for cost estimating and other analysis tasks. ACEIT is a government developed tool that has been used for over a decade to standardize and simplify the Life Cycle Cost estimating process in the government environment.

http://www.aacei.org
Since 1956, AACE International, the Association for the Advancement of Cost Engineering, has provided its members with the resources they need to enhance their performance and ensure continued growth and success. With about 5,500 members world-wide, AACE International serves cost management professionals: cost managers and engineers, project managers, planners and schedulers, estimators and bidders, and value engineers. AACE International has members in 78 countries and currently includes 70 local sections.

http://www.informs.org
Institute for the operations research and management sciences. Its designed for professionals of operations research.

http://www.ispa-cost.org
Professional society to improve and promote risk-analysis, econometrics, design-to-cost, technology forecasting and cost management

http://www.sceaonline.net
A non-profit organisation dedicated to improving cost estimating and analysis in government and industry and enhancing the professional competence and achievements of its members.

http://www.lumina.com/software/aboutanalytica.html
Analytica brings a clarity and power to business modeling beyond what's possible with a conventional spreadsheet. Analytica is a visual software tool for creating, analyzing, and communicating quantitative business models

A Definition to Close On

Constraint: something that limits (Oxford English Dictionary). Comment: Every requirement is a constraint (that is its purpose!). Every constraint is not a requirement. Robert Halligan, 2008.

Project Performance International News

OCD/CONOPS Course

PPI has delivered its first public course on OCD/CONOPS in Capability Development in September 2008 in Melbourne, Australia. The course, available world-wide to defence administrations and industry, was well received, achieving an average delegate rating of just under 9 on a scale of 0 to 10. PPI will also be delivering this course on-site in Rio de Janeiro, Brazil, in December 2009.

Project Performance International Events

Systems Engineering 5-Day Courses

Upcoming locations include:

- Las Vegas, USA
- Amsterdam, Netherlands
- Sydney, Australia
- London, UK

View 2008-2009 Systems Engineering Course Schedule

Requirements Analysis and Specification Writing 5-Day Courses

Upcoming locations include:

- Las Vegas, USA
- Melbourne, Australia
- Sydney, Australia
- London, UK

View 2008-2009 RA&SW Course Schedule

OCD/CONOPS 5-Day Courses

Upcoming locations include:

- Melbourne, Australia
- Adelaide, Australia

View 2008-2009 OCD/CONOPS Course Schedule

PPI is participating in the following professional conferences

PMI Global Congress 2008
Denver, CO, USA (18 - 21 Oct 08)

11th Annual Systems Engineering Conference
San Diego, CA, USA (20 - 23 Oct 08)

Kind regards from the SyEN team:
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Tell us what you think of SyEN: email to contact@ppi-int.com